

APR 25 2002

S2 Femoral Nail System: Design Modification To The T2™ Femoral Nail System

Special 510(k) Premarket Notification

**Special 510(k) Summary: S2 Femoral Nail System  
Design Modification To The T2™ Femoral Nail System**

K021026  
page 1 of 1

**Submission Information**

Name and Address of the Sponsor  
of the 510(k) Submission: Howmedica Osteonics Corp  
59 Route 17  
Allendale, NJ 07401-1677

Contact Person: Karen Ariemma  
Regulatory Affairs Specialist

Date of Summary Preparation: March 28, 2002

**Device Identification**

Proprietary Name: S2 Femoral Nail  
Common Name: Intramedullary Nail, Femoral Nail  
Classification Name and Reference: Intramedullary Fixation Rod, 21 CFR §888.3020

This Special 510(k) submission is intended to address a material modification and a design modification of the T2™ Femoral Nail System to create the subject device which is referred to as the S2 Femoral Nail System. The material modification involves changing the material from Ti-6Al-4V Alloy to 316L Stainless Steel. The design change for the nail involves changing the cross section, changing the proximal and distal screw hole configuration and adding additional lengths of nails. There is no change in intended use for the modified device when compared to the previously cleared device.

**Intended Use**

The subject S2 Femoral Nail System, like the predicate T2™ Femoral Nail System, is a fracture fixation device comprised of femoral nails and the related locking screws, compression screws, and end caps. The subject and predicate devices are intended to provide strong and stable internal fracture fixation with minimal soft tissue irritation. This device is utilized as an aid to healing, not as a substitute for normal intact bone and tissue.

**Statement of Technological Comparison:**

FEA analysis and mechanical testing demonstrates the comparable mechanical properties of the subject S2 Femoral Nail System to the predicate T2™ Femoral Nail System.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Ms. Karen Ariemma  
Regulatory Affairs Specialist  
Howmedica Osteonics Corporation  
59 Route 17  
Allendale, NJ 07401-1677

APR 25 2002

Re: K021026

Trade/Device Name: S2 Femoral Nail System  
Regulation Number: 888.3020  
Regulation Name: Intramedullary fixation rod  
Regulatory Class: II  
Product Code: HSB  
Dated: March 28, 2002  
Received: March 29, 2002

Dear Ms. Ariemma:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

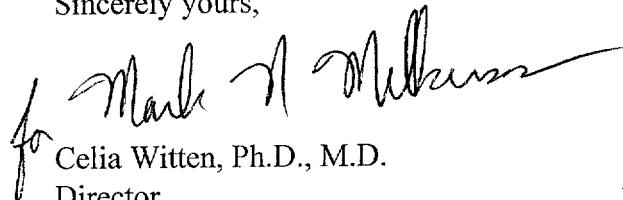
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Ms. Karen Ariemma

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address  
<http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



Celia Witten, Ph.D., M.D.

Director

Division of General, Restorative

and Neurological Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

K021026

Page 1 of 1

510(k) Number (if known): K

Device Name: S2 Femoral Nail System

Indications for Use

The S2 Femoral Nail is indicated for long bone fracture fixation specifically femoral fracture fixation, which may include the following:

- Open and closed femoral fractures
- Pseudoarthrosis and correction osteotomy
- Pathologic fractures, impending pathologic fractures, and tumor resections
- Supracondylar fractures, including those with intra-articular extension
- Ipsilateral femur fractures
- Fractures proximal to a total knee arthroplasty
- Fractures distal to a hip joint
- Nonunions and malunions

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

---

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use X

OR

Over-The-Counter Use \_\_\_\_\_

(Per 21 CFR 801.109)

(Optional Format 1-2-96)

  
Mark M. Miller

(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

510(k) Number K021026